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1905. — "Kalifornische Kalkschwämme." *Archiv für Naturgesch.*, Jahrgang 72, Bd. i. pp. 33-76.
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1873. VERRILL, A. E. "Exploration of Casco Bay by the U.S. Fish Commission in 1873." *Proc. American Assoc. Advanc. Sci.* 1873, Part 2, pp. 340-395.
1880. VOSMAER, G. C. J. "Ueber *Leucandra aspera* H., nebst allgemeinen Bemerkungen ueber das Canalsystem der Spongien." Leiden, 1880. (*An inaugural Dissertation.*)
1887. — "Porifera." Die Klassen und Ordnungen des Thierreichs, wissenschaftlich dargestellt in Wort und Bild. Von Dr. H. G. Bronn. Bd. ii. Leipzig und Heidelberg, 1887.
1878. ZITTEL, K. A. von. "Studien über fossile Spongien. III. Monactinellidæ, Tetractinellidæ, und Calcispongiæ." *Abhandl. Akad. Wissensch. München.* vol. xiii. part 2, pp. 1-48.

EXHIBITIONS AND NOTICES.

May 20, 1913.

Prof. E. A. MINCHIN, M.A., F.R.S., Vice-President,
in the Chair.

The SECRETARY read the following report on the Additions that had been made to the Society's Menagerie during the month of April, 1913:—

The registered additions to the Society's Menagerie during the month of April were 205 in number. Of these, 95 were acquired by presentation, 79 by purchase, 9 were received on deposit, 1 in exchange, and 21 were born in the Gardens.

The number of departures during the same period, by death and removals, was 156.

Amongst the additions special attention may be directed to:—

1 White-handed Gibbon (*Hylobates lar*), from Penang, deposited on April 10th.

1 Maholi Galago (*Galago maholi*), from S. Africa, presented by Lady Yule, F.Z.S., on April 8th.

1 Bangs's Agouti (*Dasyprocta colombiana*), 1 Bonda's Squirrel (*Sciurus saltuensis bondæ*), from Colombia, both new to the Collection, presented by W. K. Pomeroy, Esq., F.Z.S., on April 21st.

A Collection of Birds, from North-West India, presented by Major G. A. Perreau, F.Z.S., on April 1st, of which the following are new to the Collection:—

1 Dark Grey Bush-Chat (*Oreicola ferræ*), 1 Plumbeous Redstart (*Rhyacornis fuliginosa*), 1 Red-flanked Bush-Robin (*Ianthia rufilata*), 2 White-tailed Blue Robins (*Notodola leucura*), 1 Great Niltava (*Niltava grandis*), 2 Short-billed Minivets (*Pericrocotus brevirostris*), 1 Larger Red-headed Crow-Tit (*Sceorhynchus ruficeps*), 1 Cinnamon-bellied Nuthatch (*Sitta cinnamomeiventris*), 1 Grey-sided Laughing Thrush (*Dryonastes cœrulatus*), 4 Rufous-necked Laughing Thrushes (*Dryonastes ruficollis*).

1 Bushmaster (*Lachesis mutus*), from Trinidad, presented by the Baron E. G. E. Leijonhufvud, F.Z.S., on April 28th.

1 large Anaconda (*Eunectes murinus*), from Trinidad, purchased on April 28th.

The Rev. T. R. R. STEBBING, M.A., F.R.S., F.Z.S., drew attention to Prof. F. E. Schulze's important work on zoological nomenclature, the 'Nomenclator Animalium,' giving a brief description of its objects and scope, and urging its claims for assistance from British naturalists.

The LIBRARIAN submitted the following list of dates of publication of the early parts of the Society's "Transactions," which had been drawn up from the records kept by Messrs. Taylor and Francis, the Society's printers.

The date of issue of Parts subsequent to Vol. VII. Part 1 appears at the foot of each sheet.

VOLUME I.

| Part. | Pages. | Plates. | Published. |
|-------|----------|----------------|-------------------|
| 1. | 1-90. | I.-XII. | Aug. 14, 1833. |
| 2. | 91-194. | XIII.-XXVI. | Apr. 23-25, 1834. |
| 3. | 195-300. | XXVII.-XXXVII. | Mar. 20, 1835. |
| 4. | 301-407. | XXXVIII.-LIX. | Dec. 3, 1835. |

VOLUME II.

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|----|----------|--------------|---------------|
| 1. | 1-86. | I.-XVII. | Oct. 2, 1836. |
| 2. | 87-164. | XVIII.-XXIX. | May 4, 1838. |
| 3. | 165-248. | XXX.-XLV. | Dec. 5, 1838. |
| 4. | 249-342. | XLVI.-LVIII. | Apr. 6, 1840. |
| 5. | 343-420. | LIX.-LXXI. | May 15, 1841. |

VOLUME III.

| <i>Part.</i> | <i>Pages.</i> | <i>Plates.</i> | <i>Published.</i> |
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| 1. | 1-132. | I.-VI. | June 16, 1842. |
| 2. | 133-234. | VIII.-XVII. | Jan. 23, 1844. |
| 3. | 235-276. | XVIII.-XXX. | June 5, 1844. |
| 4. | 277-344. | XXXI.-LI. | Dec. 28, 1846. |
| 5. | 345-380. | LII.-LVII. | Apr. 22, 1848. |
| 6. | 381-431. | LVIII.-LXIII. | Apr. 30, 1849. |

VOLUME IV.

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| 1. | 1-30. | I.-VIII. | Jan. 1, 1851. |
| 2. | 31-74. | IX.-XXV. | Mar. 2, 1852. |
| 3. | 75-88. | XXVI.-XXX. | Apr. 29, 1853. |
| 4. | 89-148. | XXXI.-XLII. | May 10, 1856. |
| 5. | 149-182. | XLIII.-LIII. | Sept. 28, 1858. |
| 6. | 183-268. | LIV.-LXIII. | Aug. 31, 1859. |
| 7. | 269-352. | LXIV.-LXVII. | Aug. 23, 1861. |
| 8. | 353-382. | LXVIIa.-LXXXVII. | Sept. 15, 1862. |

VOLUME V.

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| 1. | 1-32. | I.-XIII. | June 11, 1862. |
| 2. | 33-102. | XIV.-XXVI. | May 27, 1863. |
| 3. | 103-242. | XXVII.-XLIII. | Apr. 28, 1864. |
| 4. | 243-336. | XLIII.-LII. | Apr. 5, 1865. |
| 5. | 337-421. | LIII.-LXVII. | June 6, 1866. |

VOLUME VI.

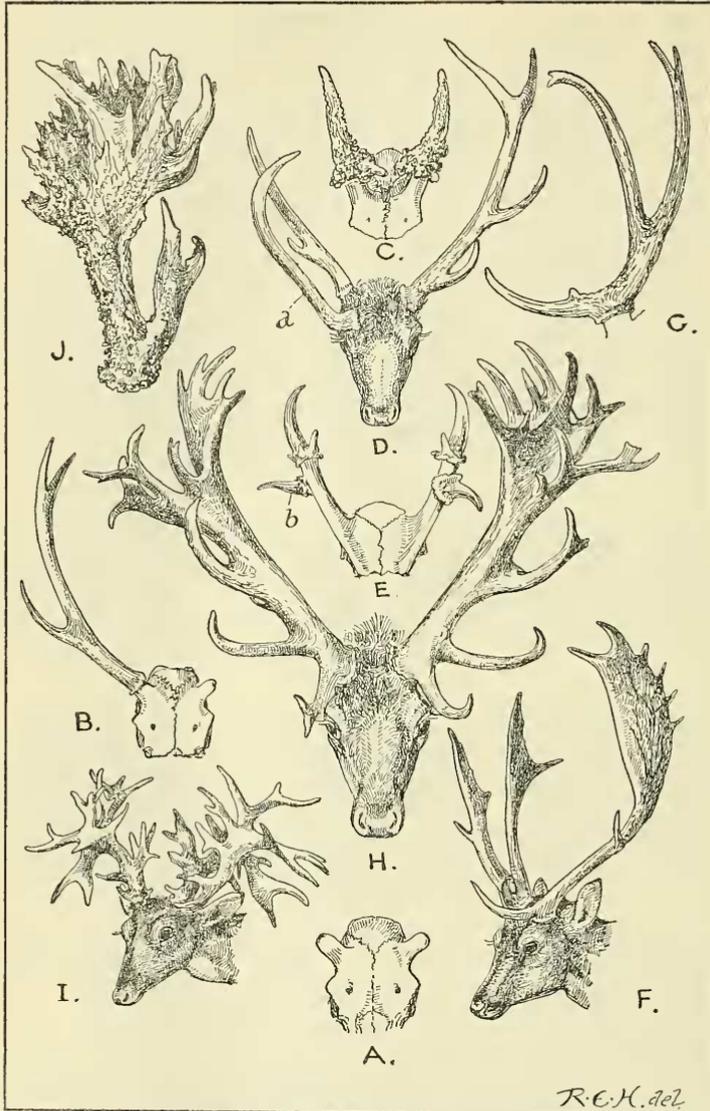
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|----|----------|-----------------|-----------------|
| 1. | 1-48. | I.-XIV. | Aug. 15, 1866. |
| 2. | 49-86. | XV.-XXIV. | Jan. 11, 1867. |
| 3. | 87-124. | XXV.-XXX. | Mar. 28, 1867. |
| 4. | 125-226. | XXXI.-XLIII. | Nov. 5, 1867. |
| 5. | 227-308. | XLIV.-LIV. | Feb. 19, 1868. |
| 6. | 309-376. | LV.-LXII. | June 4, 1868. |
| 7. | 377-494. | LXIII.-LXXXVII. | Sept. 15, 1868. |
| 8. | 495-537. | LXXXVIII.-XCII. | June 1, 1869. |

VOLUME VII.

| | | | |
|----|--------|--------|----------------|
| 1. | 1-144. | I.-VI. | Oct. 20, 1869. |
|----|--------|--------|----------------|

Mr. R. E. HOLDING exhibited a number of antlers, skulls, and photographs illustrating variations in the growth of the Antlers of Deer, and stated that antlers were liable to considerable variation in form, due either to exuberance or proliferation of growth, or to congenital defect in the embryonic stage as in the case of the "Hummel" or Hornless Stag (text-fig. 134 A), which occasionally made its appearance in Scottish and continental Deer forests.

Text-fig. 134.



- A. Upper portion of the skull of a "Hummel" or Hornless Stag, aged 5 years.
 B. Upper portion of the skull of Red Deer (*Cervus elaphus*), with deficient right and arrest of left antler.
 C. First antlers of young Wapiti Stag (*Cervus canadensis*), showing unusual growth of nodules and "burr."
 D. A large set of antlers with a "burr" on the left.
 E. A large set of antlers with a "burr" on the right.
 F. A skull with a large, palmated antler.
 G. A single large antler.
 H. A skull with a large, palmated antler.
 I. A skull with a large, palmated antler.
 J. A large, palmated antler.

Sometimes the arrest was on one side only, producing the Single-horned Stag as shown (B). Occasionally a small supernumerary horn might grow below the Burr or Coronel (*b*), as shown in the figures of Muntjac (E) and Red Deer (D), probably due, as in the Four-horned Sheep, to accessory centres in the pedicle or horn support. Other variations, and by far the most common, were due to dichotomy, bifurcation, or segmentation of the beam or of the tines. That favourable environment and ample food promoted variation in the direction of exuberance or proliferation of points was well demonstrated by the photographs from Warnham Court and by illustrations in Mr. Winans' book "Deer-breeding for Fine Heads," published by Messrs. Rowland Ward. On the other hand, head-keepers and others in charge of Scottish Deer forests, had observed that scarcity of food, hard weather, and exposure have a marked effect on the antlers of Deer, causing deficiency in growth, bad form, and degeneration.

It was not often, at least in Scotland, that a stag with a good head escaped the attention of the owner or lessee of the Forest, and therefore defects and variations due to extreme age were seldom seen in the Red Stag, but in the Park Fallow Deer a marked change took place in the form of the palmation of the antler due to advancing age.

Malformations and variations due to accident, castration, or wounds, were not referred to, as being pathological.

Of the specimens exhibited in illustration of his remarks, Mr. Holding drew special attention to the antler of a Sambur stag (J), showing excessive proliferation of points, and an exceptionally fine pair of antlers lent by Mr. C. J. Lucas, of Warnham Court.

Explanation (*continued*) of Text-fig. 134 (see opposite).

- D. Head of Stag shot in Jura Forest, showing supernumerary right antler (*a*) growing from a separate pedicle on the frontal bone.
 - E. Muntjac (*Cervulus muntjac*), showing supernumerary horns (*b*) springing from the long pedicle.
 - F. Head of Fallow-buck (*Cervus dama*), showing dichotomy or bifurcation of beam of right antler at the "burr."
 - G. Antler of Axis Deer (*Cervus axis*), the bifurcation occurring above the burr.
 - H. Head of Red Stag from Warnham Park, having 42 points. From photograph by J. G. Millais, Esq., F.Z.S.
 - I. Head of White-tailed Deer (*Cariacus leucurus*), showing excessive proliferation. Shown by Capt. Frewen at a recent Exhibition of American trophies.
 - J. Antler of Sambur Deer (*Cervus unicolor*), showing profuse growth of "points" obliterating the normal character of the antler.
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June 3, 1913.

Prof. E. W. MACBRIDE, M.A., D.Sc., F.R.S., Vice-President,
in the Chair.

Mr. D. SETH-SMITH, F.Z.S., Curator of Birds, exhibited the egg and young of the Mikado Pheasant (*Calophasis mikado*), a rare species, described first in 1906, from the mountains of Formosa. Some living specimens had been imported in 1912 by Mr. Walter Goodfellow, and the owners of these birds had entrusted the eggs to the Zoological Society, where they were being hatched.

The egg was cream-coloured and very large compared with those of allied species of pheasants, measuring 57×41 mm.

The incubation period proved to be twenty-eight days, instead of twenty-four as in the majority of pheasants, and the young when newly hatched were very large, and had the quill-feathers better developed than was the case in allied species.

PAPERS.

45. The Transvaal Race of the Cape, or Khama, Hartebeest*.
By R. LYDEKKER, F.R.S., F.Z.S. †

[Received April 1, 1913: Read April 8, 1913.]

(Text-figure 135.)

| INDEX. | Page |
|-----------------------------------------------------|------|
| Description of <i>Bubalis caama selbornei</i> | 819 |

In their excellent volume, 'The Sportsman in South Africa,' Messrs. Nicolls and Eglinton describe (p. 45) the Cape, or Rooi, Hartebeest (*Bubalis caama*), probably from fresh specimens, as follows:—

"General colour reddish brown, with violet tinge throughout; dark plum-coloured saddle-patch, commencing at point of shoulder, extends over entire surface of back and ends in root of tail; a similar patch extends over each shoulder, downwards as far as knees, and front of shin-bones of fore-legs; pale yellowish patch on cheeks of rump; front of face, which is very long, almost black, as is a stripe down back of neck."

In their figure of the head (pl. iv. fig. 13) the broad face-blaze is shown as extending uninterruptedly from the base of the horns

* [The complete account of this new subspecies appears here, but since the name and a preliminary diagnosis were published in the 'Abstract,' No. 119, 1913, it is distinguished by being underlined.—EDITOR.]

† By permission of the Trustees of the British Museum.